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ROUMANIA

Economic

The Petroleum Industry

Part I. General Survey

A. Introduction

1. Roumania is the fifth largest oil producer in the world and the largest in Europe after Russia.

2. The oil fields are in the hilly sub-Carpathian regions of MOLDAVIA and MOLDAVIA. Before the war they were exploited by about one hundred large and small companies, most of which were owned by British, American, French, Belgian, Italian and Dutch groups.

3. Following the [redacted] of the large industrial combines in 1948, the entire oil production was divided among the following three firms:-

- (a) Sovrompetrol (a Roumanian-Soviet company)
- (b) Iuntenia (a [redacted] Roumanian company)
- (c) Moldavia (a [redacted] Roumanian company).

In August 1951 the last two were incorporated in Sovrompetrol, so that from then onwards the Roumanian [redacted] industry may be regarded as having passed under Soviet control.

4. The annual production of crude oil dropped from a maximum of 9.5 million tons in 1935 to 4.5 million tons in 1948. The reports concerning the 1949 and 1950 production are very contradictory. According to some, production was considerably less than in 1948 for the following reasons:-

- (a) Failure to replace machinery, especially drills
- (b) Progressive depletion of oil-fields
- (c) Inadequate number of new drillings (trivellazioni)
- (d) Removal of technically capable staff for political reasons

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(e) Acts of sabotage and the workers' lack of interest in achieving maximum output.

5. According to others, however, the 1949 production was substantially the same, while the 1950 production approached the figure provided for under the Plan, i.e. 6 million tons.

6. There is no doubt that there was a serious shortage of petrol throughout the country in 1949 and 1950 and that the shortage caused considerable hardship and discontent among the population. But the main cause of the shortage was the large quantity of petrol exported to the U.S.S.R. It is symptomatic in this connection that at the beginning of 1951 the Russians

[redacted] production had declined considerably. In

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February 1951 a journalist of the newspaper "Scanteia" and a Roumanian technician employed by "Sovrospetrol" received orders to confide secretly to as many people as possible that Roumanian production had failed to reach two million tons owing to damage inflicted on the industry during the war by American bombing.

B. The Five-Year Plan 1951-1955

7. The Roumanian Government had already introduced a series of measures aiming at increasing [redacted] production under the 1950 Plan. These measures provided for:-

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- (a) an increase, compared with 1949, of 14.6% in the "monthly cyclic speeds" (velocita ciclica mensile) of prospective drillings, and of 8.6% of drillings for exploitation purposes;
- (b) the carrying out of research with a view to re-activating discarded trial borings;
- (c) introduction of special precautions to reduce the wear and tear of trial borings still in use;
- (d) introduction of new production and processing methods experimented in the U.S.S.R.
- (e) application of the principle of the division of

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[redacted] in the main drilling

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operations;

- (f) improvement of the oil transport system;
- (g) an increase of 30% in the volume of drillings for oil (perforazioni petrolifere) as compared with 1949;
- (h) improvement of all drilling machinery, and speeding-up of the repair of trial boring tools and the manufacture of new equipment.

3. The 1951-1955 Five-Year Plan provides for the achievement of twenty main objectives for the development of national economy. Article (1) of the law quotes the development of the oil industry as the main objective of the Plan.

9. The annual output is to be increased to 10 million tons by 1955. This is to be achieved by a gradual increase in the number of drillings, which by the end of 1955 are to reach a total of 1,250,000 [redacted], of which 50X1-HUM 550,000 are for prospecting and 700,000 for exploitation.

10. The law also provides for:-

- (a) the introduction and application on a large scale of the secondary extraction method in order to reduce the percentage of crude oil remaining in the wells.
- (b) the installation of new primary distillation plant and the improvement of existing plants.
- (c) the construction of new plants of the "thermic-catalytic" type capable of doubling output.
- (d) increased production of high-octane [redacted], high-quality oils etc. 50X1-HUM
- (e) improvement of the methods used for the transport of crude oil and its derivatives by the construction of new pipe-lines with an overall

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annual capacity of 2,600,000 tons.

11. The expenditure reserved for the development of the oil industry amounts to 129 billion Lei, equal to 10% of the total investment program. 50X1-HUM

12. It is difficult to establish with certainty the production of the Roumanian oil industry during the first year of the operation of the Plan (1951), as all information on the subject is kept a closely guarded secret.

Even the officials [redacted] know nothing beyond what is strictly essential for the carrying out of their own particular work. 50X1-HUM

13. Many estimates concerning production figures have been made in the international press. According to some, production amounts to 3.5 million tons a year, while others place the figure at between 5 and 6 million tons. An assessment of the information received from various sources adds strength to the belief that Roumanian production now stands at 6 million tons a year. A further considerable increase in production is forecast as a result of the intensification of prospecting and drilling operations, the rational exploitation of new oil-fields, the introduction and application on a large scale of more up-to-date methods and the gradual replacement of the more obsolete equipment.

14. The geological research and prospecting being carried out in MOLDAVIA by Soviet staff has already led to the discovery and exploitation of new oil-fields, while prospecting in OLTEMA and in TRANSYLVANIA is still under way.

C. Production

The Oil-fields

15. The Roumanian oil-fields are on the outer side of the Carpathian arc which runs from North to South between BUCOVINA and BUZAU and then turns westwards. They comprise two great production [redacted], one of which is West of BUZAU and the other one North of the Carpathian bend, along the entire Eastern fringe of the Carpathians. 50X1-HUM

16. The chemical characteristics of Roumanian oil produced in the two [redacted] are as follows:-

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(a) Density at 0° : PRIMORIA 0.842

MOLDAVIA 0.773

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(b) Composition:

PEAKHOVA

C 86.3
H 13.32
S .03

MOLDAVIA

C 85.29
H 14.21
S .03

17. Forty oil-fields forming part of the two [redacted]

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are at present being exploited [redacted]

(a) West of BUZAU (along the Southern slopes of the Transylvanian Alps)

- (1) Province of BUZAU (BEICA, BUZAU and MONTEORU)..... 3
- (2) Province of PEAKHOVA (BACIOCI, BODESTI, BUSTENARI, CAPINA, CIPTURA, CRICOV, MARGINETI, MOIENI, PACUETI, PIORISTI, UHLATI 11
- (3) Province of DAMBOVITA (BUCSANI, DOICESTI, GIESTI, GURA OCNEI, CHIURI, PICIOR DE MUNTE, SUIA SEACA, TARCOVISTE)..... 6
- (4) Province of ARGEŞ (PITESTI)..... 1
- (5) Province of VALCEA (BOESTI)..... 1
- (6) Province of GORJ (SCHELA MAIE, PESTEANA DE SUS) .. 2
- (7) Province of ARIAD (ARIAD)..... 1

(b) North of BUZAU (MOLDAVIA)

- (1) Province of RUMNICUL SARIT (LIBANASI)..... 1
- (2) Region of BACAU (BACAU, BALATAN, CIPENI, CASIN, HARJA, MOIESTI, OITUZ, SLANIC, SOLOPT, MARGUL OCNA, TAZLAN, ZHEES)..... 12

Extraction Methods

18. Oil is extracted from wells lined with metal tubes, which reach a depth of over 2,000 m [redacted] Drilling operations are carried out with the usual drilling towers (torri sondi).

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19. In some cases there is a natural flow of oil, which is forced to the surface by gas pressure, but in most cases the oil is extracted by means

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of pumps. The use of wells is more economical, although 80 - 90% of the oil remains in the ground.

20. Two methods are used for drilling the wells: the percussion and the rotary method.

21. Before the war most of the extracting and processing machinery was supplied by the U.S. During the war a number of machines, especially drilling machines, were imported from Germany, and only a very small number of machines were built in the country itself. Many of these American drilling machines are still being used, but they are very worn and in some cases almost unserviceable.

22. The control instruments (drillometers of the MARTIN, LOOMIS or 50X1-HUM DENKER type, and deviatometers) and instruments for measuring "bottom pressure" are of American, German, British and Swiss origin. [redacted]

23. The construction of oil extracting machinery in Romania is meeting with serious difficulties mainly owing to:-

- (a) the lack of skilled [redacted] 50X1-HUM
- (b) the lack of hard metals, tin and special alloys, ball bearings, etc.

24. As far as well-drilling equipment is concerned, there is a shortage of drilling rods, rock drills, transmission chains and high-pressure rubber tubes (flessibili di gomma).

25. Owing to the difficulty of importing extraction and refining machinery, some of the refineries in the PLOESTI area ("Teleajen", ex-"Unirea", ex-"Concordia") have for some time [redacted] been manufacturing their own equipment.

The "Progressul" factory at BRAILA also produces equipment for test boring tools (sonde). Near CAMPINA the works of the Ministry of Mines and Petroleum repairs drills and test boring tools. It is equipped with modern machinery, including special boring tool lathes of German manufacture. 50X1-HUM

26. Some machines which are difficult to manufacture are imported from Czechoslovakia, Hungary, Poland, [redacted] The quantities

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involved are very small as the factories concerned are compelled to give priority to orders from the home market and from Russia.

27. Only in the case of well-linings has Roumania been able to cover her own requirements. These are produced by the "Repubica" (ex-"Molazca") factory at BUCHAREST and the FESITTA metallurgical works. But in view of the increased demand for well-linings, the output of these two factories is now proving to be inadequate. In order to overcome this critical shortage attempts are now being made to recover the linings of wells which have since been abandoned, but this is not proving easy.

The Oil-fields

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28. After being taken over by "Sovro-petrol" the Roumanian oil-fields were divided into four groups:-

Group No.1 - CAMPINA (PRAHOVA)

Group No.2 - HOIESTI (MOLDAVIA)

Group No.3 - PLOESTI (PRAHOVA)

Group No.4 - MARCOVISTE (DAICOVITA)

Each group is divided into "Schelc" (the name given to groups of drilling towers in the various oil-fields).

29. The Directorate General of "Sovro-petrol" at BUCHAREST comes under the Ministry of Mines and Petroleum. The Director General and other high officials are Russian, and their assistants are Roumanian. The directors of the groups are Russian, whereas the technical and political directors, and the directors of the "Schelc", are Roumanian.

30. The most important oil-fields with a daily output of 900-1,300 tons are:-

Province of BACAU (MOLDAVIA):

ACIESTI, CIUZ.

Province of BUZAU:

BUZAU.

Province of PRAHOVA:

BLICOI, BOLDESTI, CAMPINA, LOZENI,

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PLOESTI, U.R.S.R.

Province of DALBOVIA:

DOLCESTI, GAESTI, OCTIURI,

SUTA SFACA, TARGOVISTE.

31. The search for oil in the PLOESTI area is being carried out by the "UCOVY Drilling" [redacted], which has a machinery depot and a large repair workshop.

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Processing (Refineries) [redacted]

32. Before the war the distillation, rectification and refining of the oil was carried out by approximately 20 large and 40 small factories. Their productive capacity, estimated at more than eleven million tons a year, exceeded by far the quantity of oil produced annually.

33. All the large refineries were heavily damaged during the war. But although only some of the destroyed refineries have been reactivated, the productive capacity of those at present in operation still exceeds the total quantity of oil produced. But the increase in oil production will undoubtedly call for the building of new refineries or the enlargement of existing ones, and this is in fact the direction in which the plans of "Sovrompetrol" are pointing.

34. The most important processing [redacted] is PLOESTI, in the province of PRALOVIA, where "Sovrompetrol", by giving large-scale encouragement to the reconstruction and enlargement of the most important refineries existing since before the war, and by amalgamating various establishments into a single combine, has succeeded in restoring the following refineries to full operational efficiency:-

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- (a) "Sovrompetrol No.1" (ex-"Astra Romana", ex-"Orion", ex-"Petrol Mina"), with a daily production of 2,000 tons.
- (b) "Sovrompetrol No.2" (ex-"Vega"), with a daily production of 3,000 tons.
- (c) "Sovrompetrol No.3 Felcajen" (ex-"Romana-Americana"), with

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a daily production of 1,200 tons.

- (d) Ex-"Unirea", with a daily production of 2,000 tons.
- (e) Ex-"Standard", with a daily production of 1,500 tons.
- (f) Ex-"Columbia", with a daily production of 1,000 tons.

35. To these six large refineries must be added a further ten in PRIMOVA province, most of which are damaged or without plant. Some have been converted into factories for the production of equipment for the oil industry.

36. Other refineries in operation are:-

(a) Province of PRIMOVA

CAMPINA, with a daily production of 2,500 tons;

BRIZI, with a daily production of 1,500 tons.

(b) Province of DABBOWITA

DOICESTI,

GURO COMITEI,

PICIOR DE BUNTE.

(c) BACAU Region (MOLD. VLA)

MOINESTI, with a daily production of 1,000 tons;

DALINESTI, with a daily production of 2,800 tons.

(d) PENI, on the Russian border.

(e) RUMICU SARAT.

37. In all, there are 15 refineries in operation at present and a further four are under construction:-

(a) BAICOI

(b) TARGOVISTE

(c) COLETESTI

(d) SCOLA MERCA.

38. Before the war most of the refinery equipment was imported from the U.S. and to a lesser extent from Czechoslovakia and from Germany. The only supplier since the end of the war has been Czechoslovakia, which supplied the Pipo-Still for the ex-"Steuia-Romana" refinery, with a daily capacity of 1,000 tons.

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39. The following types of fuels are produced:-

- (a) Light Aviation gasoline
- (b) Motor gasoline
- (c) Diesel fuel
- (d) Gas oil (gas da ardore)
- (e) Residual Fuel Oil for locomotives and ships.

40. The [redacted] is of the 66 - 68 octane type, but this is frequently improved by the addition of "gasolina" (?) or tetra-ethyl lead.

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41. Whereas the production of the current types is running smoothly, the production of aviation gasoline and high-quality lubricants is at present meeting with difficulties which cannot be easily overcome.

D. Transport and StoragePipelines

42. The pipe-lines consist of metal tubes of 5 to 8 in. internal Ø. They are buried at an average depth of 1.5 m [redacted] and run parallel with roads and railway lines. Occasionally they run on the surface, usually when crossing bridges.

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43. The entire network of pipe-lines is closely guarded, especially those delivering oil to Russia. Along the main pipe-lines there are pressure control posts spaced at intervals of 4 kms, which are linked with each other by a special telephone network. Every control post contains a device for giving the alarm whenever the pressure drops below a certain level, which may be caused by leaks or, as is more frequently the case, by acts of sabotage, or pilfering by farmers living in the area through which the pipe-line passes.

44. [redacted] Soviet detachments patrol most of the pipe-lines day and night. The pipe-lines are divided into security zones. Prominent notices posted every 200 yards contain a warning that acts of sabotage are punished by death.

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45. Apart from the collector pipe-lines of the two big oil producing [redacted] 50X1-HUM of PLOESTI and BACAU, which are 276 and 85 kms long respectively, there are six main pipe-lines with an overall length of more than 900 kms. They link

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[redacted] the PLOESTI area with REJI (on the 50X1-HUM

Soviet border), the port of CONSTANTA, the port of GIURGIU (on the Danube) and BUCHAREST.

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46. The PLOESTI - REJI pipe-line was built between 1946 and the beginning of 1951; it has recently been extended as far as ODESSA.

The Tanker Fleet [redacted]

47. It is difficult to assess accurately the size of the Roumanian tanker fleet. The only information available is that "Sovronpetrol" has at its disposal 72 tankers totalling 51,600 tons. There are at present a large number of tankers at CONSTANTA taking on cargoes for ODESSA.

Railway Tank [redacted]

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48. The Roumanian railways at present have 9,000 tank [redacted] or 10, 14 50X1-HUM and 20 tons. The number on 1st May 1948 was 8,300.

Fixed Storage Tanks49. In 1940 there were 500 storage tanks of various sizes (the largest had a capacity of 5,000 m³) and a total storage capacity of 3,000,000 tons distributed as follows:-

(a) Oil-fields	590,000 tons
(b) Refineries	1,550,000 "
(c) Port of CONSTANTA	760,000 "
(d) Port of GIURGIU	100,000 "

50. Many of the storage tanks were destroyed during the war, and others were dismantled by the Russians. The present overall storage capacity is estimated at 2,000,000 tons. About 20 storage tanks hidden in forests with a total capacity of 500,000 tons are reserved for military purposes.

51. Near the port of CONSTANTA there are a large number of big storage tanks [redacted]

E. Home Consumption

52. Before the war the internal consumption of petroleum products amounted to 1,500,000 tons a year. In 1948 the figure was 1,450,000 tons. Figures for subsequent years are lacking, but owing to the large-scale distribution

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of natural methane gas, which is available also for domestic consumption, and several recent restrictions on the use of gasoline and kerosene for lighting purposes, there is reason to believe that present consumption does not exceed 1 million tons a year. Motor gasoline and kerosene have in fact been rationed since 1st November 1951. The reasons for this measure, the first of its kind in peace-time, are due not so much to a decline in production as to the increasing demands of Russia for petrol.

53. The Government order for the rationing of motor gasoline has divided consumers into four groups, each of which is entitled to a certain number of coupons:-

- (a) Ministries, public institutions, economic and central mass
- (b) Foreign diplomats;
- (c) Private firms and professional men owning cars and industrial plant;
- (d) Private owners of taxis, professional men and the owners of motor-cycles forming part of the [redacted] force.

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54. A certain quantity of gasoline is made available to the free market for sale to other consumers.

55. Those entitled to rationed gasoline are issued with coupons valid for any depot in the country. Other consumers can buy gasoline at special pumps [redacted] to sell "free" gasoline at very much higher prices. 50X1-HUM

56. A further measure fixed the price of motor gasoline and kerosene as follows:-

Motor gasoline

With coupons:

Wholesale: 29.11 Lei per kg

Retail: 28 " " "

Without coupons: 70 " " "

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Kerosene

Wholesale: 10 Lei per kg

Retail: 10 " " "

57. It is very difficult at present to find motor gasoline at all, even with coupons. Some can always be found on the "black market", but at exorbitant prices.

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58. The shortage [redacted] for internal consumption has led to many restrictions on the operation of public services, as for instance at CONSTANTA, where the buses run only between 0800 and 0830, 1200 and 1500 and 1800 and 2000 hrs.

F. Exports

59. Roumania has always exported the greater part of its petroleum products. During the war years Germany was practically the only customer, taking 1,430,000 tons in 1940, of which 950,000 tons were shipped via the Danube and the balance by railway, with a maximum of 3,000,000 tons in 1941.

60. Today it is of course Russia which is drawing on Roumanian oil resources, of which it has an almost complete monopoly. In two years in particular 50X1-HUM Russia took large quantities of Roumanian oil: in 1945 (3,100,000 tons) and 1949 (3,200,000 tons). The latter figure included 1,400,000 tons for the Satellite countries, of which Czechoslovakia took 100,000 tons, and Albania 40,000 tons.

61. Russian imports fall under two headings:-

- (a) Deliveries effected in fulfillment of annual commercial agreements;
- (b) War reparations in kind, in accordance with article 12 of the Peace Treaty.

The Peace Treaty has fixed at 300 million dollars the reparations payable by Roumania to the U.S.S.R. by instalments up till September 1952. The total quantity of fuel to be supplied to Russia on account of reparations was estimated at 10 million tons at the beginning of 1949. It seems likely, therefore, in view of the two large-scale withdrawals and the annual deliveries, that Roumania's war debt commitments towards Russia have been settled some time ago.

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62. Present oil exports to Russia are believed to amount to 5 million tons.

The 1951 production amounted to 6 million tons, of which only 1 million tons, or even less, were accounted for by internal consumption.

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G. Conclusions

63. (a) The immediate post-war crisis of the oil industry has been overcome, except that the following serious difficulties remain to be solved:-

- (i) lack of hard metals for the manufacture of certain items of well-drilling equipment;
- (ii) importation of extracting and refining plant and precision instruments;
- (iii) manufacture of aviation gasoline and high-quality lubricants.

(b) Oil production reached 5 million tons at the end of 1951.

(c) Internal consumption, which before the war amounted to 1.5 million tons, has been reduced by one third, mainly owing to the increased employment of methane.

(d) More than 80% of the entire production of oil and its derivatives is taken up by Russia.

(e) The Russian re-organisation of the oil industry by means of "Sovropetrol" has led to the following results:-

- (i) intensification of geo-physical research;
- (ii) rational exploitation of 40 oil-fields;
- (iii) [redacted] enlargement of 15 refineries;
- (iv) construction of the PLOESTI - KINT - ODESSA pipe-line and other collector pipe-lines; the enlargement of existing pipe-lines;
- (v) the building of factories for the construction of machinery for the extraction, refining and transport of oil and its by-products.

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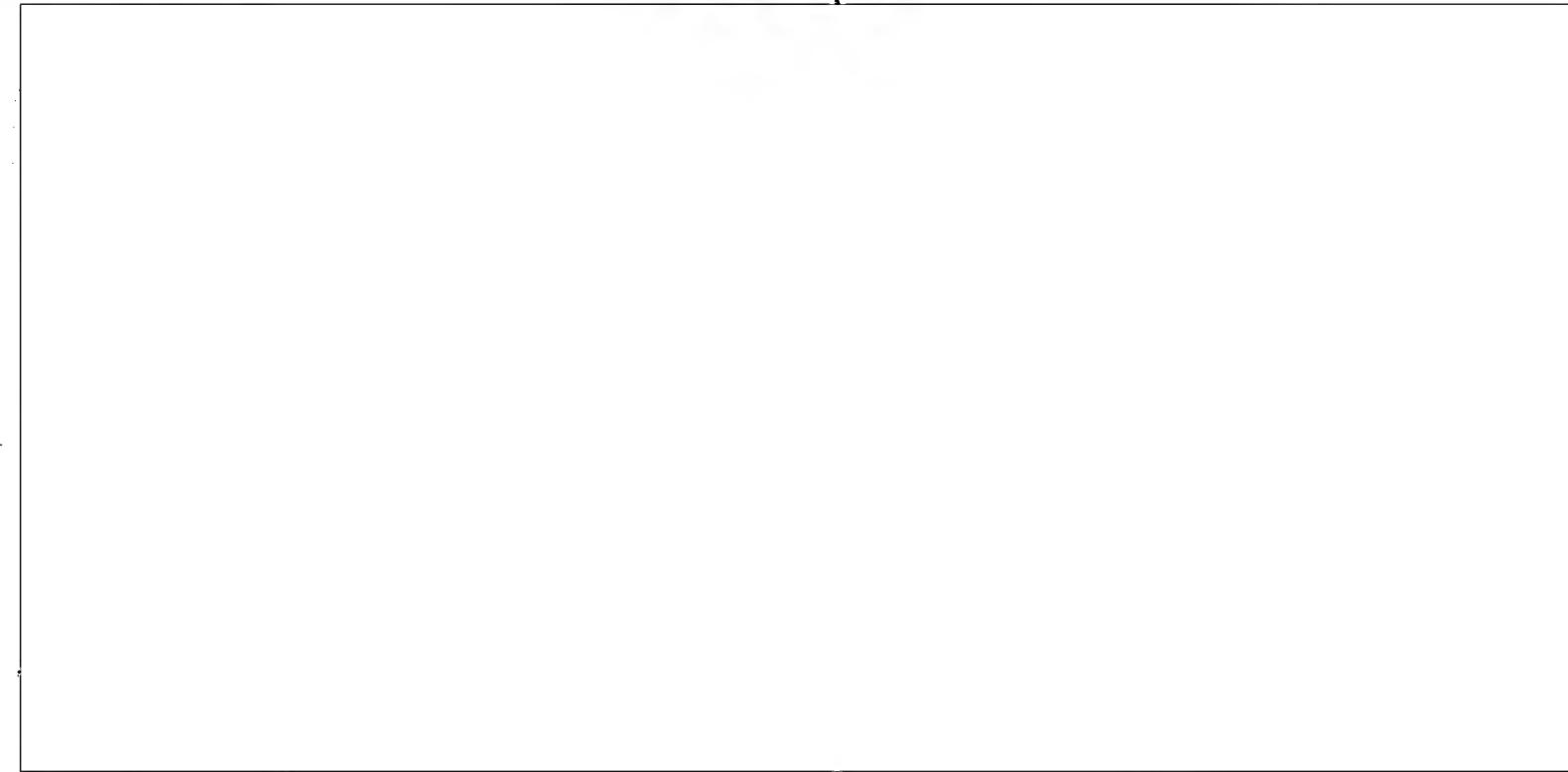
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Part II. The Oil Fields

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ARAD (BANAT)

State

1. Active

Quality produced

2. "C"

ARBANASI (BUZAU)

Location

3. 15 kms North of ARBANASI

Area covered

4. 5 x 3 kms

Wells

5. 20

Daily Output

6. 20 - 30 tons

Development Plans

7. Recent trial borings were negative.

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BACAU (MOLDAVIA)Location8. PACANI area, near BACAUWells9. 2State10. Active. The two wells, which had been abandoned for 35 years, were re-activated in 1951.BAICOI (PRAHOVA)State11. ActiveArea covered12. 15 kms (West-East) x 5 kms (North-South)Wells13. 150Daily Output14. 1,000 tons.BALATAN (MOLDAVIA)State15. A number of drilling towers were being erected in September 1950.BERCA (BUZAU)State16. ActiveLocation17. 22 kms N.N.W. of BUZAUArea covered18. 5 kms (West-East) x 2 kms (North-South)Wells19. 30Extraction Method20. Pumps**SECRET CONTROL**
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Quality produced

21. "C"

Daily Output

22. 350 tons. The wells have already been exploited to a considerable extent.

BOLDESTI (PRAHOVA)State

23. Active

Location

24. Outskirts of BOLDESTI

Area covered

25. 10 kms (West-East) x 3 kms (North-South)

Wells

26. 80

Drilling Towers

27. 15 - 20

Extraction Method

28. Gas lift and pumps

Eruption

29. Spontaneous

Development Plans

30. Further test drillings are being carried out, and two new wells were opened up recently: one in October 1950 (with a daily output of 270 tons) and one in February 1951 (details of output lacking). The discovery of new oil fields is expected.

BUCSANI (DAMBOVITA)State

31. Active

Location

32. 15 kms S.E. of TARGOVISTE

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Quality produced

33. "C"

BUSTENARI (PRAHOVA)State

33. Active

Location

34. Between TELNGA and BORDENI

Quality produced

35. "A-3"

BUZAULocation

36. In the valley

State

37. Active

Wells

38. 70 (abandoned and then re-activated)

Development Plans

39. A number of new wells were opened up in September 1950.

Output

40. On the increase. Figures are lacking.

CAMPENI (MOLDAVIA)Location

41. 3 kms N.W. of B.SASTI

State

42. Drilling towers were being set up by Sovrompetrol in September 1950

CAMPINA (PRAHOVA)State

43. Active

Location

44. Between the PRAHOVA and the DOFTANA

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Wells

45. 50 - 60, of which 30 - 40 have been exploited for a considerable time.

Quality produced

46. "A-4"

Eruption

47. Spontaneous

Development Plans48. Drilling operations are under way since March 1951 7 kms S.W. of
CAFINA. 15 - 20 drilling towers are being used. The oil found so far is
of "D" quality.CASIN (MOLDAVIA)State

49. Work in progress.

CHIPTURA (PRAHOVIA)Location

50. 25 kms N.E. of PIOESTI

State

51. Work in progress

CRICOV (PRAHOVIA)State

52. Unspecified number of drilling towers in operation

DOICESTI (DAMBOVITA)State

53. Active

Drilling towers

54. 100

Pipe-Line

55. To FLOESTI

GAESTI (DAMBOVITA)State

56. Active

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50X1-HUM

Location

57. Wooded area N.E. of GAESTI

Wells

58. 100

Development Plans

59. The drills available are capable of reaching depths of 100 - 300 metres.

Several drilling towers have been erected and another pipe-line constructed.

GURA OCNIIEI (DALEOVITA)

State

60. Active

Location

61. 10 kms East of TARCOVISTE

Area covered

62. 10 kms (West-East) x 3 - 4 kms (North-South)

Wells

63. 100

Daily Output

64. 500 - 600 tons

Quality produced

65. "A-3" and "C"

Average depth at which oil is found

66. 800 m

50X1-HUM

Storage Tanks

67. 8, containing 200

loads of 10,000 litres each.

Development Plans

68. 20 new wells have been opened up between 1946 and May 1951

HARJA (MOLDAVIA)

State

69. Active since 1949

Location

70. In the OITUZUL valley, 15 kms S.W. of TARGUL OCNA

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MARGINETI (PRANOVA)State

71. Active

Quality produced

72. "C"

MOINESTI (MOLDAVIA)Wells

73. 500

Daily Output

74. 1,000 tons

Quality produced

75. "C" and "D"

Development Plans

76. 1,000 further wells are to be sunk.

Pipe-Lines

77. The oil field is linked with the MOINESTI and DARMANESTI refineries.

MONTEORU (BUZAU)Location

78. 12 - 13 kms West of BUZAU, on the Northern slopes of Mount MONTEORU

Wells

79. 2

Extraction Method

80. Pumps

Daily Output

81. 50 - 60 tons

MORENI (PRANOVA)Area covered

82. 15 kms (West-East) x 5 kms (North-South)

Wells

83. 100

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Daily Output

84. 800 - 900 tons

Quality produced

85. "A-1" and "A-2"

OCIUJANI (DA BOVITA)Wells

86. 200

Hannover

87. 3,300

Storage Tanks

88. 6, containing 200 wagon-loads of 10,000 litres each

OITUZ (MOLDAVIA)Location

89. 6 kms South of TARGUL OCNA

Wells

90. 250

Daily Output

91. 800 - 900 tons

Pipe-Lines

92. The oil field is linked with the DAMANEsti refinery by a pipe-line

Development Plans

93. A further 250 wells are to be sunk

PACURETI (PRANOVA)State

94. Active

Location

95. Between MAGURELE and POIANA

Quality produced

96. "D"

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PESTELANA DE SUS (OLTEANIA)State

97. Active

Wells

98. 8

Depth at which oil is found

99. 1,500 - 2,000 metres

Pipe-Line

100. The oil field is linked by an underground pipe-line with TANTALENI

PICIOR DE LUNTE (DAMBOVITA)State

101. Active. Exploitation has started recently.

Quality produced

102. "C"

PLOESTI (PRAHOVA)State

103. Active

Drilling Towers

104. Unspecified number in operation

ROBESI (VALCEA)Drilling Towers

105. 4. Drilling has reached a depth of 2,000 metres without striking oil.

SCIGALA MARIE (GORJ)Location

106. 15 kms N.W. of TARGU-MIU

SLINIC (MOLDAVIA)State

107. Active since 1949

SOLONT (MOLDAVIA)State

108. Active since 1949

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Location

109. 10 kms North of MOINESTI

Wells

110. 10 - 15.

Pipe-Line

111. To the MOINESTI refinery

SUTA SEICA (DAMBOVITA)Location

112. 15 kms S.E. of TARGOVISTE

Area covered

113. 3 x 3 kms

Wells

114. 40

Daily Output

115. 1,300 tons

Depth of Oil

116. Up to 1,500 m

50X1-HUM

Development Plans

117. An unspecified number of new wells were being sunk at end of 1950

TARGOVISTE (DAMBOVITA)State

118. Active

Area covered

119. 5 kms (north-south) x 3 kms (west-east)

Wells

120. 100

Daily Output

121. 1,200 tons

Quality produced

122. "C"

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TARGUL OCNA (MOLDAVIA)State

123. Not yet active in November 1950

Location

124. At VIDRILE, 7 kms S.W. of TARGUL OCNA

Drilling Towers

125. 4, in operation since 1949

TAZLAU (MOLDAVIA)State

126. Active

Wells

127. 6

Output

128. Before the war 20 - 30 [redacted] loads were produced daily

50X1-HUM

Pipe-Line

129. To the DINIESTI refinery. The pipe-line has recently acquired added importance, since the discovery of new oil fields.

URLATI (PRAHOVA)State

130. Active

Area covered

131. 10 kms (west-east) x 2 kms (north-south)

Wells

132. 100

Daily Output

133. 800 - 900 tons

Quality produced

134. "A-4" and "C"

Method of Extraction

135. Gas lift and pumps

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ZEMES (MOLDAVIA)

State

136. Active

Location

137. 5 - 6 kms outside MOINESTI

Wells

138. 100

Development Plans

139. The oil field was re-equipped with modern plant in 1949

Pipe-Line

140. The pipe-line to MOINESTI was completed in 1950.

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PART III. RefineriesA. ActiveBRAZI (PRAHOVA area)Title

1. Formerly known as "Creditul Minier".

Location

2. 7 kms south of PLOESTI, east of the railway line to BUCHAREST.

Refining Process

3. "Complete".

Capacity of Cracking Plant

4. 182,000 tons a year.

Daily Output

5. 1,000 - 1,500 tons.

Shifts

6. Three.

CAMPINA (PRAHOVA area)Title

7. "Sovrompetrol No.4", formerly known as "Steua Romana".

Location

8. Eastern outskirts of CAMPINA.

Area covered

9. 800 x 400 m

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Daily Output

10. 2,000 - 2,500 tons.

Refining Process

11. "Skin".

Manpower and Shifts

12. 1,500 in three shifts.

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COMANESTI (MOLDAVIA)Location

13. In the TROTUS Valley.

Date of Completion

14. Construction of the refinery began in 1949 and was due for completion by the end of 1950.

DARMANESTI (MOLDAVIA)Title

15. "Sovrompetrol No.4", formerly known as "Petrolifera Moldava".

Location

16. 4 kms west of DARMANESTI railway station.

Daily Output

17. 2,800 tons.

Manpower and Shifts

18. 4,000 in three shifts.

Storage Tanks

19. 38 with a capacity of 30 - 50 tons each, and 30 with a capacity of 10 tons each.

Date of Completion

20. 1949

Expansion of Plant

21. The plant was enlarged in 1950 by the construction of a second refinery north of the existing one. It is now regarded as one of the most important refineries in the country.

Destination of Output

22. The entire output is exported to Russia.

Transport

23. By railway tank [redacted] from VALEA ANZALUI station.

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DOJCESTI (DAKOVITA)Title

24. Not known. The refinery was previously owned by AGIP.

Manpower

25. 600

Pipe-Line

26. The refinery is linked by a pipe-line with the TURGOVISTE - PIETROSITA railway line.

GURA CONITEI (DAKOVITA)Title

27. Not known.

Location

28. In a wood in the area known as FERILETRU, situated 3 kms from GURA CONITEI.

Storage Tanks

29. 80

Pipe-Line

30. Any output in excess of storage capacity is sent to the PLOESTI refineries by pipe-line.

MOINESTI (MOLDAVIA)Title

31. "Petrolifera Moldava", formerly known as "Steua Romana".

Location

32. 50 metres east of MOINESTI railway station.

Daily Output

33. 1,000 tons.

Manpower and Shifts

34. 700 in three shifts.

Refining Process

35. "Skin".

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PICIOR DE MUNTE (DAMBOVITA)

36. A small refinery.

PLOESTI (Main refineries)(i) "Sovrompetrol No.1" (ex-"Astra Romana", ex-"Orion", ex-"Petrol Mina")Refining Process

37. "Complete".

Capacity of Cracking Plant

38. 620,000 a year.

Daily Output

39. 2,000 tons.

Manpower and Shifts

40. 3,500 in three shifts.

Storage Tanks

41. 100

Production

42. The refinery has a large plant for the production of aviation spirit.

War Damage

43. The "Orion" refinery was completely destroyed during the war and the "Petrol Mina" refinery suffered heavy damage.

(ii) "Sovrompetrol No.2 (ex-"Vega")Location

44. 2 kms east of PLOESTI.

Daily Output

45. 3,000 tons.

Storage Tanks

46. 156 tanks with a capacity of 2,000 - 4,000 tons each, and 15 with a capacity of 100 - 150 tons each.

Manpower and Shifts

47. 3,000 in three shifts.

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(iii) "Sovrompetrol No. 3 Polcach" (ex-"Romana-Americana")

Location

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48. 3 kms east of FLOESTI.

Refining Process

49. "Slam-Crk".

Capacity of Cracking Plant

50. 410,000 tons year.

Daily Output

51. 1,000 - 1,200 tons.

Manpower and Shifts

52. 3,000 in three shifts.

Storage Tanks

50X1-HUM

53. 280 storage tanks, of 15 - 20 cu [] average Ø and 7 - 8 cu [] average [] height. 50X1-HUM

Secondary Production

54. The refinery also produces and repairs petrol extracting and processing machinery and equipment.

(iv) Ex-"Standard"Location

55. Southern outskirts of FLOESTI.

Daily Output

56. 1,000 - 1,500 tons.

Storage Tanks

57. 100 storage tanks with an average capacity of 100 [] each are 50X1-HUM under construction.

(v) Ex-"Columbia"Location

58. NW outskirts of FLOESTI.

Refining Process

59. "Slam-Crk".

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Capacity of Cracking Plant

60. 172,000 tons a year.

Daily Output

61. 1,000 tons.

Manpower and Shifts

62. 1,000 in three shifts.

B. Inactive, or in Process of Reactivation or ConversionEx-"Xenia"Location

63. NW of PLOESTI

State

64. Almost inactive since 1948 owing to shortage of crude oil. The plant was to be completely reactivated by the end of 1951.

Refining Process

65. "Skin".

Daily Output

66. 450 tons.

Manpower

67. 500

Ex-"Vacuum Oil"Location

68. Near PLOESTI

State

69. Uncertain

Ex-"Ruat"Location

70. South of PLOESTI

State

71. The plant was removed to Russia in 1946. The refinery was re-equipped in 1951, but was not yet active.

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Ex-"Dacia Romana"State

72. Inactive. The entire plant was transferred to DASCANEsti (MOLDAVIA) after the end of the war.

Ex-"Redenta"State

73. Most of the refinery was destroyed during the war and the remaining items of plant removed elsewhere.

Ex-"Franco-Romana"Location

74. 3 kms NE of PLOESTI railway station ("Gara Sud").

Manpower

75. 500

Ex-"Steaua Romana"Location

76. Northern suburbs of PLOESTI

State

77. Uncertain

"9th May"Location

78. Between the eastern and southern railway stations at PLOESTI

State

79. Uncertain

RAINTOUL SARATDaily Output

80. Several hundreds of tons of paraffin.

RENILocation

81. South of RENI, between the Danube and the railway line to BOLGRAD.

Storage Tanks

82. 20.

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C. Under ConstructionBATCOI (PRAHOVA)State

83. Under construction since February 1951.

SCELA BERCA (ex-"Muntania")Location

84. 18 kms SW of BUZAU

State

85. Under construction

Manpower and Shifts

86. 3,000 in three shifts

Output

87. 7 - 8 [redacted] loads a day

50X1-HUM

Plans

88. The refinery is to absorb several others in the PLOESTI area. It is operating 42 wells with 160 drills.

TARGOVISTELocation

89. 7 kms north of TARGOVISTE.

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Part IV. Pipe-Lines

A. Main Pipe-Lines

The BAICOI - PLOESTI - BUZAU - CERNAVODA - CO JEALIA Pipe-Line

Total Length

1. The total length of the pipe-line is 295 kms.

Distribution Station

2. A distribution station known as "TELEAJEN" is located 4 kms East of PLOESTI, South of the railway line leading to BUZAU. It covers an area of 800 x 400 metres and comprises 30 storage tanks varying in capacity from 1,000 - 5,000 tons. The station receives refined products from the PLOESTI refineries and distributes them to FETI, CONSTANTA and GIURGIU by means of single pipe-lines of 8" internal ϕ .

Pumping Stations

3. A pumping station with four storage tanks (one of 5,000 tons, two of 2,000 tons and one of 1,000 tons capacity) is operating at INOTESTI (25 kms East of PLOESTI). It is linked with the DEMICA, ARBANASI and HOFMORU oil wells by 6" pipe-lines and with the PLOESTI refinery by a 7" pipe-line.

4. At CERNAVODA, between FETESTI and COSTANZA, there are six pumping stations in operation.

The CERNAVODA - BAICOI - PLOESTI - BUCHAREST - GIURGIU Pipe-Line

Total Length

5. The pipe-line has an overall length of 158 kms.

Diameter

6. The internal ϕ of the pipe-line is 8".

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Post-war Changes

7. Up till 1946 the stretch PLOESTI - GIURGIU was served by two pipe-lines. One of these was dismantled by the Russians and re-laid between FAUREI - RENI.

The BAICOI - PLOESTI - BUCHAREST - GIURGIU Pipe-LineTotal Length

8. The total length of this pipe-line is 142 kms.

The CAMPINA - BAICOI - BUCHAREST Pipe-LineTotal Length

9. The pipe-line is 84 kms long.

The TELEJEN - BUCHAREST Pipe-LineTotal Length

10. The pipe-line has an overall length of 54 kms.

The PLOESTI - FAUREI - GILATZ - RENI (Russian Frontier) Pipe-LineTotal Length

11. The pipe-line is 190 kms long.

Contracting Firm

12. Initially the building operations were carried out by three private firms which were subsequently incorporated in the "Sovromconstructia".

Course Followed

13. The pipe-line runs sometimes North and sometimes South of the railway, which it follows on a parallel course at a distance of about 20 m.

Technical Features

50X1-HUM

14. The pipe-line is of steel, with an internal ϕ of 8". Thickness of walls: 1".

Operating Pressures

15. A working pressure of 20-25 atm is maintained. The maximum permissible pressure is 60 atm.

Stop Valves

16. The pipe-line is fitted with stop valves at intervals of 3-4 kms.

These are located inside concrete shelters measuring 3 x 3 x 3 m. at 50X1-HUM protected by a steel lid. The shelters can be easily recognised since they

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protrude several cms above ground level.

Pumping Stations (Stazioni di sollevamento)

17. These are located at PLOESTI, BUZAU and FAUJEL.

Safety Precautions

18. As a safety precaution the stretch of pipe-line running along the bed of the rivers SIRET and PRUTH has been doubled.

Storage Tanks

19. Large storage tanks have been built at KINTI, where part is off-loaded onto tankers for shipment to ODESSA. 50X1-HUM

Security

20. The control and security of the pipe-line is the responsibility of the Russian armed forces.

B. Secondary Pipe-Lines

1. PLOESTI Area

21. The pipe-line which linked TINTEA with PLOESTI has been dismantled and shipped to Russia.

22. A new pipe-line between GAESTI and TARGOVISTE was built in 1951. It runs alongside the existing one and consists of two conduits, one of which has been laid on top of the other one. The whole network of pipe-lines is 276 kms long:-

GHESTI - TARGOVISTE	Kms 27
DOICESTI - TARGOVISTE	" 10
GURA CONTIN - TARGOVISTE	" 10
TARGOVISTE - PLOESTI	" 43
SUTA SEACA - BOIENI	" 22
CALPINA - BALCOI	" 16
BRZI - PLOESTI	" 7
BALCOI - PLOESTI	" 15
BOLESTI - PLOESTI	" 9
URLATI - PLOESTI	" 27
ABRANASI - BERCA - MONTECRU -	" 90
MONESTI - PLOESTI	

SECRET CONTROL Total: Km 276
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BICNU Area (Moldavia)

23. The network of pipe-lines in this area has an overall length of 85 km:-

KOINENSTI - DAB LAMESSTI Kps 15

ORTIZ - DARMONESTI 20

TAELAU = DARMSTADT " 40

SOLONT - NOTHEIST " 10

Total: Ma. 85

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PART V. The No. 3 "YILMAZ" (ex-SO. AMERICA) Refinery,
PIESTE

Description and Layout of Plant

L.

- (1) First Office Building, containing:-
 - (a) Office of the refinery manager and laboratories
 - (b) Office of the assistant refinery manager and laboratories
 - (c) Office of the refinery production manager
 - (d) Office of the workshop manager and auxiliary services
 - (e) Office of chief engineer
 - (f) Planning office
 - (g) Technical office
 - (h) Buildings maintenance office
 - (i) Electric plant, machinery and steam boiler maintenance office
 - (j) Staff and staff control office
 - (k) Labour protection office
 - (l) Administration office
 - (m) Shorthand-typists' pool (available to all offices)
 - (n) Post office
 - (o) Conference room for executive staff.
- (2) Second Office Building, containing:-
 - (a) Research and development office
 - (b) Factory trade-union office
 - (c) Office of the factory section of the Communist party
 - (d) Cash office
 - (e) Telephone exchange
 - (f) Political conference room
- (3) Despatch office.

Building measuring 10 x 10 metres.

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(4) Canteen, kitchen, meeting hall and theatre. 50X1-HUM
 [redacted] building measuring 45 x 30 m [redacted] 50X1-HUM

(5) Apartments for the executive and medical staff of the refinery and their families. One of the buildings contains the headquarters of the Romanian detachment responsible for security within the refinery.
 [redacted] building measuring 25 x 20 m [redacted] 50X1-HUM

(6) Living quarters for executive staff and families.
 [redacted] building measuring 20 x 20 m [redacted] 50X1-HUM

(7) Living quarters for technical staff and families.
 [redacted] buildings measuring 10 x 8 m [redacted] 50X1-HUM

(8) Surgery.
 [redacted] building measuring 10 x 10 m [redacted] The
 surgery is well-equipped and contains 24 beds. Three
 doctors are on duty during the day. At night-time
 there is one doctor and a number of male nurses.

(9) School and living quarters for apprentices.
 [redacted] building measuring 40 x 8 m [redacted] The 50X1-HUM
 school turns out specialised workers for the oil industry. 50X1-HUM
 Courses last three years and are attended by 150 pupils,
 divided into three classes. Pupils are granted free board,
 lodging and clothing for the entire duration of the course.
 On holidays and on special occasions they also receive small
 money grants.

(10) Swimming pool.
 Dimensions: 20 x 10 m [redacted] Maximum depth: 3 m [redacted] 50X1-HUM

(11) Bar.
 Wooden hut measuring 5 x 5 m [redacted] 50X1-HUM

(12) Concrete cistern.
 Dimensions: 5 x 5 m [redacted] Height: 3 m [redacted] Used as 50X1-HUM
 50X1-HUM

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ammunition depot during the war, it is now used to store tarpaulins for motor vehicles.

(13) Tennis court.

(14) Sports ground.

Equipped for football, basket ball, hand-ball, etc.

(15) WCs.

Small brick structures measuring 2 x 2 m []

50X1-HUM

(16) Thermo-electric power station.

Building measuring 40 x 20 x 10 m [] The plant

50X1-HUM

consists of three diesel engines of 1,000 H.P. each.

It supplies electric energy for the operation and lighting of the refinery.

(17) Car park.

Used for the parking of cars during the day-time.

(18) Garage and lubricants store.

Building measuring 20 x 30 m [] covered with a corrugated iron roof and divided into:-

50X1-HUM

(i) Garage

(ii) Store containing lubricants for the motor vehicles belonging to the refinery.

(19) Underground fuel depot.

Used for the fuelling of vehicles belonging to the refinery. It is equipped with petrol pumps and a single storage tank with a capacity of 5,000 l [].

50X1-HUM

(20) Garage, upholsterers' workshop and used [] store.

Single-storey building measuring 45 x 40 m [] covered with a corrugated iron roof. It is divided into:-

50X1-HUM

(i) Garage

(ii) Upholsterers' workshop, for the repair of the

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50X1-HUM

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bodywork of coaches and passenger cars belonging
 to the refinery

[redacted]

50X1-HUM

(21) Vehicle washing shop.

Building measuring 40 x 30 m [redacted] covered with a
 corrugated iron roof.

50X1-HUM

(22) Garage.

Concrete building measuring 40 x 40 m [redacted] with
 concrete saddle roof.

50X1-HUM

(23) Dump containing scrap iron and unserviceable vehicles

(24) Living quarters for workers employed on a farm belonging
 to the refinery.

Brick building measuring 40 x 30 m [redacted] with a
 corrugated iron roof.

50X1-HUM

(25) Varnishing shop.

Brick building measuring 20 x 20 m [redacted] with a
 corrugated iron roof.

50X1-HUM

(26) Canteen food store.

Wooden hut measuring 20 x 10 m [redacted]

50X1-HUM

(27) Former canteen (present use unknown).

Brick building measuring 20 x 20 m [redacted]

50X1-HUM

(28) Motor vehicle repair workshop.

Brick building measuring 80 x 40 m [redacted] with a
 corrugated iron roof. It is divided into:-

50X1-HUM

(i) [redacted] vulcanisation shop

50X1-HUM

(ii) Turnery

(iii) General repairs workshop.

100 operatives are employed.

(29) Equipment and miscellaneous material store.

Wooden hut measuring 40 x 20 metres.

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(30) Store containing vehicle spares.

Building with a steel girder frame covered with
corrugated iron sheets. Dimensions: 25 x 20 m [redacted]

50X1-HUM

(31) Locksmiths and coppersmiths' shop employing 120 hands.

Brick building measuring 105 x 40 m [redacted]

50X1-HUM

The plant includes:-

- (i) 2 pneumatic hammers
- (ii) 1 rolling mill
- (iii) Unspecified number of lathes and other machines.

(32) Store containing precision equipment of the locksmiths and
coppersmiths' shop.

Building with a steel girder frame covered with corrugated
iron sheets. Dimensions: 6 x 4 metres.

(33) Store containing steel for the locksmiths and coppersmiths'
shop.

(33a) Uncovered space for the storage of items produced in the
locksmiths and coppersmiths' shop.

(34) Uncovered space for the storage of steel.

(35) Cow shed.

Brick building measuring 60 x 25 m [redacted] containing 12
cows. The milk produced is made available partly to
the surgery and partly to the operatives handling acids,
at the rate of half a liter [redacted] a day each.

50X1-HUM

50X1-HUM

(36) Pigsty.

Wooden hut in which 40 pigs for the canteen are raised.

(37) Kitchen and canteen for staff looking after the animals.

Brick building measuring 25 x 15 m [redacted]

50X1-HUM

(38) Offices, tailors' shops etc.

Single-storey brick building divided into:-

- (i) Offices of the management and administration

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of the farm owned by the refinery

- (ii) Tailors' shop, for mending the working clothes of the refinery staff
- (iii) Dairy
- (iv) Living quarters for the female cleaning staff.

(39) Store containing preserved vegetables for the canteen.

Wooden hut.

(40) Three wooden huts.

Measurements: 50 x 20 m

50X1-HUM

Contents:-

- (i) Refractory materials
- (ii) Cement in bags
- (iii) Grain.

(41) Gatekeeper's lodge.

Brick building measuring 3 x 3 m .

50X1-HUM

(42) Check post and barber's shop.

The check post is equipped with three time-control clocks.

Brick building measuring 30 x 8 m

50X1-HUM

(43) Bicycle store

Wooden lean-to measuring 15 x 15 m

50X1-HUM

(44) Bread distribution

Brick building measuring 7 x 4 m

(45) Grain stores.

Wooden huts measuring 40 x 2.5 m

(46) Bakery.

Brick building measuring 17 x 20 m

(47) Disused building.

Formerly used as a school for the children of the British and American staff employed in the refinery before the war.

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Single-storey building measuring 25 x 20 m []

50X1-HUM

(48) Geodetic instruments store.

Wooden hut measuring 15 x 5 m []

50X1-HUM

(49) Workshop for the maintenance of the railway sidings
within the refinery.

Brick building measuring 20 x 8 m []

50X1-HUM

(50) Uncovered space for the storage of metal scrap.

(51) Locomotive depot containing two locomotives of old pattern
used for shunting operations inside the refinery. They
are in a bad state of repair.

Brick building measuring 60 x 27 m []

50X1-HUM

(52) Artesian wells.

Water from these wells is pumped to all parts of the
refinery. Each well delivers 10 tons of water an hour.

(53) Shop for the manufacture of sheet iron conduits.

Brick building measuring 20 x 10 m []

50X1-HUM

(54) Carpenters' shop.

Brick building measuring 10 x 10 m []

(55) Ice factory.

Building measuring 10 x 10 m []

(56) Window glass depot.

Building measuring 10 x 10 m []

(57) Uncovered space for the storage of pipes.

(58) Engineering workshop for the repair of equipment for test
boring tools, employing 300 hands.

Brick building measuring 100 x 60 m []. The

50X1-HUM

shop is equipped with American machinery

(available since before the war) and with Czech
machinery of post-war and pre-war construction.A number of planing machines were received recently
from the U.S.S.R.

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(59) Carpentry shop employing 50 hands.

Brick building measuring 30 x 30 m [redacted]

50X1-HUM

(60) Electrical plant maintenance shop employing 40 hands.

One-storey building measuring 40 x 15 m [redacted]

50X1-HUM

(61) Locksmiths' shop employing 60 hands.

Building measuring 65 x 40 m [redacted]

(62) Showers.

Building measuring 35 x 15 m [redacted]

(63) Welding shop and plant for the manufacture of tar drums.

Brick building measuring 60 x 15 m [redacted] divided into:-

50X1-HUM

(i) Electric and autogenous welding shop

(ii) Shop for the manufacture of 200 kgs

capacity steel drums used for the transport
of tar.

(64) Central equipment store for the PLOESTI petroleum industry.

Brick building measuring 100 x 40 m [redacted] with
a corrugated iron roof.

50X1-HUM

(65) Railway goods yard measuring 140 m [redacted] in length.

50X1-HUM

(66) Weighing machine for railway tank [redacted]

Capacity: 100 tons.

(67) Uncovered space for the storage of boiler tubes of
small dimensions, pipe coils etc.

(68) Timber store.

Roofing measuring 60 x 17 m [redacted]

50X1-HUM

(69) Loading platform for railway tank [redacted] and road
tankers.

Dimensions: 120 x 20 m [redacted]

50X1-HUM

(70) Weigh-bridge for motor vehicles.

Capacity: 10 tons.

(71) Fire station and miscellaneous equipment store.

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Brick building divided into:-

- (i) Fire station containing motor pumps
- (ii) Store containing miscellaneous equipment.

(72) Central pumping station.

Concrete building measuring 50 x 12 m [] containing 50X1-HUM
 40 steam [] -driven suction and force pumps of 50X1-HUM
 the following types: "Ortington", "National Transit",
 "Gasoil Pump", "Lusei", "Ideal".

(73) Pump maintenance shop.

Brick building measuring 13 x 8 m [] 50X1-HUM

(73a) [] storage tanks.

The tanks are 4 m [] high and 5 m [] in Ø. 50X1-HUM
 They contain fuel for the [] pumps 50X1-HUM

in the central pumping station.

(74) Boiler station.

(74a)

Two brick buildings measuring 65 x 22 m [] (74) and 50X1-HUM
 35 x 25 m [] (74a) containing a number of boilers 50X1-HUM
 which provide steam for all departments in the refinery.

(75) Crude still.

Building measuring 40 x 25 m [] 50X1-HUM

(76) Stirrers.

Cylindrical tanks of 6 m [] Ø and 30 m []
 high with conical shaped bottoms []
 []

(76a) Pumping station and plant for the operation of the stirrers.

Brick building measuring 40 x 10 m [] 50X1-HUM

(76b) Tanks containing unspecified chemical preparations used

in connection with the "stirring" process.

Dimensions: Ø = 6 m [] height: 4 m [] 50X1-HUM

50X1-HUM

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(76c) Tanks containing [] which has been subjected to the "stirring" process. Dimensions: $\phi = 13$ m height: 5 m [] 50X1-HUM

(76d) Uncovered space for the storage of [] drums. []

(77) Pipestill. Building measuring 65 x 60 m []

(77a) Cracking plant. Building measuring 80 x 60 m []

(77b) Rectangular-shaped steel water storage tanks

(77c) measuring:-

(b) 25 x 10 x 3 m [] 50X1-HUM

(c) 18 x 5 x 3 m []

supplying water for the cooling of the cracking plant.

(78) Unspecified [] distillation plant. 50X1-HUM

(79) Dimensions:-

(78) 75 x 70 m []

(79) 80 x 70 m []

(80) Cooling tower. Concrete reservoir resting on a concrete base with an hourly capacity of 400 m³ of water.

(81) Vacuum still.

(81a) Building measuring:-

(81) 35 x 25 m [] 50X1-HUM

(81a) 27 x 15 m []

(82) Plant for the collection of refinery residues, for subsequent redistribution to various installations.

Building measuring 40 x 10 m [] 50X1-HUM

(83) Grease manufacturing plant and store.

Building measuring 60 x 35 m [] divided into: 50X1-HUM

(i) Plant for the manufacture of greases

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50X1-HUM

required for the maintenance of machinery,
 motors etc.

(ii) Grease store containing 200 kgs capacity steel drums.

(84) Tar preparation plant equipped with a number of basins into which the semi-solid mass is allowed to drain for the purpose of cooling and cutting. Alternatively, the tar is packed in 200 kgs capacity steel drums.

(85) Shed with steel girder framework covered with a saw-tooth corrugated iron roof, used as storage depot for tar in blocks and drums.

Dimensions: 80 x 80 : []

50X1-HUM

(86) Uncovered space for the storage of empty tar drums.

50X1-HUM

(87) Furnace room for [] distillation []
 Building measuring 20 x 14 m []

50X1-HUM

(88) Steel smokestack 20 m [] high, belonging to the furnace room (87).

50X1-HUM

(89) [] distillation plant using a recently invented process known as "SUB VIP" (Roumanian). The plant was supplied by the Czech firm "B.K.S.", which also provided []
 its installation. The new plant entered into operation in September 1951.

50X1-HUM

50X1-HUM

Dimensions: 30 x 20 : []

(89a) [] "Fractionation" plant (frazionamento) consisting of a metal tank of 4 metres \varnothing and 30 m [] high fitted with an internal mechanism. It contains [] which has already been distilled in plant (89).

50X1-HUM

50X1-HUM

(89b) [] storage tank used in connection with plants (89) and (89a).

50X1-HUM

50X1-HUM

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(90) Recently installed oil refining plant.

Brick building measuring 30 x 15 m [] The plant entered into operation in November 1951.

50X1-HUM

(91) Vaseline refining plant producing a special type of vaseline for the greasing of weapons.

Brick building measuring 40 x 20 m []

50X1-HUM

(91a) Storage tank measuring 2.5 x 2 m [] containing chemical solutions for plant (91).

(92) Storage tank measuring 20 m [] in ϕ and 7 m [] in height containing foam for fire-fighting purposes. It is also used for charging fire extinguishers.

50X1-HUM

(92a) Reserve water tank measuring 20 m [] in ϕ and 7 m [] in height, to be used only in case of an outbreak of fire.

50X1-HUM

(93) Chemical laboratory.

One-storey building measuring 30 x 15 m []

50X1-HUM

(94) Chemical experimental laboratory.

Building measuring 10 x 5 m []

(95) Chemical laboratory.

Building measuring 5 x 6 m []

(96) Furnace for the destruction of all refinery residues.

Building measuring 30 x 5 m []

50X1-HUM

(96a) Smokestack 8 m [] high, belonging to the furnace (96).

50X1-HUM

(97) Area of Storage Tanks.

The area contains about 280 storage tanks varying in size from 15-20 m [] ϕ and 7 - 8 m [] in height.

50X1-HUM

50X1-HUM

They are used partly for the storage of crude oil, which is delivered straight from the oil wells by pipe-line, and partly for the storage of refined products. The storage tanks are connected with the central pumping station by means of underground conduits through which

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The crude oil is pumped to the various refining plants for subsequent return to the reserve storage tanks. Some of the tanks are protected by a 2-[redacted] high earth wall.

50X1-HUM

Construction is planned of brick or concrete protective walls for all storage tanks in the refinery. The walls are to cover two thirds of the height of the tanks.

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